Best's
Underwriting Newsletter

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Will Passive Smoking Claims Burn Your Bottom Line?

The hazards of tobacco smoke are in the news again, but with a new twist that should make underwriters sit up and take notice. As we have previously reported (September, 1988 and July, 1992), cigarette manufacturers have been remarkably successful in defending product liability claims by smokers. In the wake of the U. S. Supreme Court decision we reviewed last July, the family of Rose Cipollone has abandoned the suit she initiated against three tobacco companies. More significantly, their attorneys, widely regarded as the most knowledgeable and successful plaintiff's counsel in tobacco product liability litigation, have moved to dismiss or asked permission to withdraw from each of the remaining actions in which they represent smokers against cigarette manufacturers. The tobacco industry's success has continued in Illinois, where a St. Clair County jury last month rejected Charles H. Kueper's claim of a tobacco industry conspiracy to deceive the public on the health hazards of smoking and ruled that the plaintiff, not R. J. Reynolds Co., bears responsibility for his lung cancer.

Recently antismoking activists have taken a new approach by seeking damages on behalf of nonsmokers whom they allege have been injured by other people's cigarettes. The first of these suits has not yet come to trial. When it does, we'll learn whether juries are more sympathetic to nonsmokers than they have been to smokers, whom they appear to regard as having voluntarily assumed the risks inherent in using tobacco products. In the meantime, it is these alleged nonsmoker injuries which the newest development addresses.

On January 7, the U.S. Environmental Protection Agency (EPA) released a report identifying environmental tobacco smoke (ETS) as a "Group A" (or known) human carcinogen and attributing the deaths of

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3,000 adult nonsmokers annually to lung cancer induced by secondhand smoke. In addition to its primary finding, EPA also estimates that each year exposure to ETS, or "passive smoking," causes as many as 300,000 lower respiratory tract infections (e.g., bronchitis and pneumonia) among children under 18 months of age, and increases the frequency of episodes and the severity of symptoms in up to 1,000,000 asthmatic children. The report goes on to identify secondhand smoke as a causal factor in middle ear infections, associated upper respiratory tract infections, and reduced lung function in infants, and as a risk factor for the development of new cases of childhood asthma.

The report's findings are likely to promote new state laws restricting smoking in public places, and they may prompt OSHA, which had deferred action on all indoor air quality issues pending the EPA study, to develop a new standard on smoking in the workplace. Experts also expect EPA's evaluation to provide additional ammunition to nonsmoking plaintiffs who claim to suffer from lung cancer induced by exposure to ETS. Plaintiff's attorneys specializing in tobacco products liability have already indicated that they anticipate expanding their litigation beyond tobacco manufacturers to employers and businesses that permit smoking on their premises. Such lawsuits, if they materialize, will certainly increase defense costs borne by general liability and workers compensation insurers, but they are far less likely to produce substantive damage awards.

Like most EPA reports, *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders* (December, 1992; United States Environmental Protection Agency) presents no new data. Rather, it is a

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weight-of-evidence study which bases its conclusions on a review of previously published research. The report draws its primary conclusions from 30 epidemiologic studies of the incidence of lung cancer among women from eight different countries who have never smoked but whose husbands have. All 30 studies used spousal smoking as a surrogate for exposure to secondhand smoke. Although each study observed a higher incidence of lung cancer among exposed women, only six originally found statistically significant differences, and none of the 11 United States studies reported a statistically significant increase in risk. Slightly more than half the studies (17) provide sufficient data for ranking subjects by exposure level. This ranking is critical to determining the existence of a dose-response relationship, an essential element in attributing causality. All 17 reports that ranked subjects found higher incidence of lung cancer among exposed subjects, and a majority of them (nine) report a statistically significant difference at the highest exposure level. Only one of the adult studies attempted to measure actual exposure to ETS, and none investigated its possible effects on male subjects.

In analyzing the data from previous studies, EPA staff and the Science Advisory Board had to contend with several circumstances which tend to impede the ability of scientific research to identify a statistically significant relationship between ETS and lung cancer. Detection of carcinogenic responses usually demands high exposure levels typical only of occupational settings and experimental animals who receive very high doses. Spousal smoking fails to produce the high level of exposure which researchers would prefer, and animal studies have measured exclusively the effects of mainstream smoke, which active smokers inhale.

The prevalence of secondhand smoke also tends to mask its true effects in two ways. Because virtually everyone is exposed to a measurable level of ETS, it is impossible to isolate a truly unexposed group for comparison to exposed subjects. Researchers must, therefore, employ the less powerful technique of comparing groups with different exposure levels. The background exposure also tends to obscure the effects of passive smoking in the experimental group, especially in the United States, where background exposure is generally higher than spousal exposure.

Because lung cancer is rare among nonsmokers, previous research has also suffered from low statistical power, which measures its ability to detect a real effect if that effect exists. Science can do little about the problems associated with low incremental exposure and significant background exposure, but it can improve statistical power when multiple studies are available. To accomplish this, EPA first adjusted all results downward to allow for misclassification of active and former smokers as never having smoked. They then assessed individual results for strength of association in both the overall results and the highest exposure group where exposure level data was available, as well as for exposure-response trend. Although two-thirds of the research originally reported no statistically significant association, the probability that the consistent results they report occurs by chance is infinitesimal (less than 10^{-4} or one in 10,000 for overall results).

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EPA then pooled the results, both positive and nonpositive, using accepted statistical techniques for combining data from different studies, to produce a larger database which enjoys significantly greater statistical power than any of the underlying studies. Applying a 90% confidence interval, EPA found a statistically significant increase in the incidence of lung cancer among all exposed subjects. Their results are consistent across studies and across diverse geographical areas, including the United States, Greece, Hong Kong, Japan, China and Western Europe.

Criticisms of the Report

As you might expect, tobacco manufacturers were quick to attack EPA, the report, its conclusions and the classification of ETS as a "Group A" carcinogen. In separate press releases on January 6 and 7, the Tobacco Institute, the industry's lobbying and public relations organ, accused EPA of "adjusting" science to fit a specific policy goal; discarding generally accepted statistical guidelines and ignoring significant new research in its evaluation of ETS carcinogenicity; basing its "Group A" classification of ETS on its chemical similarity to mainstream smoke; ignoring the recommendations of an expert panel EPA convened to evaluate it's own use of scientific evidence; and acting on the report's conclusions before they had been compiled. Because many people believe that the Institute has strained its credibility beyond acceptable limits, you might be tempted to dismiss their criticism as nothing more than industry propaganda. Some of their criticism, however, stands on a firm foundation and may influence judicial evaluation of future expert testimony based on EPA's findings. Reaction from groups who find the

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report's conclusions favorable to their positions has been much more restrained. In declining an interview, the Tobacco Products Liability Project, the leading antismoking activists, referred us to their published statements which address not the EPA report or its findings, but the effect of litigation on behavior and policies.

The strongest criticism of EPA's findings lies in their acceptance of statistical significance at a 90% confidence interval. This constitutes a significant departure from all past EPA hazard assessments as well as generally accepted research standards, which demand at least 95% confidence to support conclusions as strong as those EPA has drawn. Adoption of such a significant procedural change on a highly controversial issue may raise serious questions about the validity of their conclusions. As the Institute contends, EPA does in fact compare ETS to mainstream smoke, and states that their chemical similarity is sufficient to classify secondhand smoke as a "Group A" carcinogen when coupled with mainstream smoke's proven dose-related carcinogenicity and evidence of ETS uptake in nonsmokers. EPA uses this similarity, however, only to establish biological plausibility. It does not, as the tobacco industry would have us believe, form basis for their risk assessment or, by any stretch of the imagination, justify a comparable evaluation of, say, peanut butter. The Institute's insistence on evaluating only the results of individual studies also appears to be misplaced and would discard a valuable and scientifically valid tool for assessing data from diverse sources.

The Tobacco Institute further criticizes EPA for omitting significant new research, especially a study funded by the National Cancer Institute and published in November that found no statistically significant association between secondhand smoke and adverse health effects. Adding these findings to the database, they allege, causes the statistical significance of the link between passive smoking and lung cancer to disappear. Their position that EPA should withhold its findings while any new study is in progress is hardly feasible because it would permit any special interest group to forestall an unfavorable hazard evaluation simply by bankrolling new research. The National Cancer Institute research first appeared in November, while EPA was putting the finishing touches on their report, and requiring its incorporation into the database is unreasonable. Any new scientific evaluation supporting the Institute's contention, on the other hand, would serve to discredit the EPA's conclusions and impair their evidentiary value significantly.

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It is also true that EPA awarded a contract for preparation of a "Workplace Policy Guide" on smoking before finalizing its formal risk assessment, but this is not necessarily indicative of bias or subordinating science to predetermined policy objectives. Because research begins with gathering, collating and analyzing data, its conclusions are often known before drafting of the formal report begins. This process takes months, sometimes years for government agencies, and it is difficult to accept the argument that the public interest demands dotting the "i"s and crossing the "t"s before taking action.

Pronouncements of the plaintiff's bar notwithstanding, there is little reason to anticipate any significant impact on damages underwriters can expect to pay nonsmoking victims of lung cancer or other respiratory ailments as a result of EPA's classification of ETS as a "Group A" carcinogen. Plaintiffs must still bear the burden of proving a causal relationship between exposure to secondhand smoke and their own injuries, a process which is significantly more difficult than simply attributing the deaths of 3,000 nonsmokers each year to passive smoking. The scientific evidence supporting the risk assessment is the least persuasive EPA has ever accepted, and there are already indications that new research may discredit their findings. Epidemiologic research, which is the foundation of almost every hazard evaluation, is also of little value in assigning the likely cause of any individual case of lung cancer. In addition, tobacco companies remain the most promising defendants, and they have long since abandoned the search for affordable product liability insurance.

The judiciary may also take evidence of the adverse health effects of secondhand smoke with a grain of salt. Burned by hundreds of lawsuits and several multimillion dollar verdicts founded on "scientific" evidence which was later discredited, judges have begun to take a critical look at expert testimony. A growing number of courts, including the notoriously liberal Ninth U. S. Circuit in California, have refused to admit expert testimony which is not based on generally accepted scientific theory and methodology. In departing from their own established standards and

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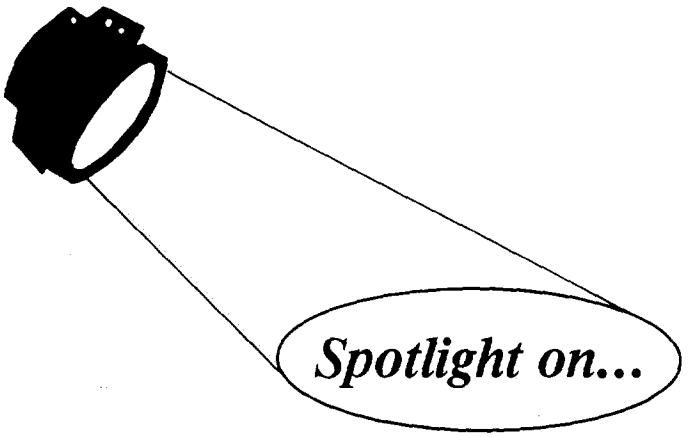
those of the scientific community, EPA may have brought their classification of ETS as a "Group A" carcinogen within the realm of questionable expert testimony which courts may exclude entirely or instruct jurors to scrutinize carefully. The scope of a judge's discretion to exclude expert testimony which fails to meet these criteria is now before the Supreme Court. We expect them to rule this Spring, and plan to report on this issue later this year.

Businesses that permit smoking on their premises may arguably face an exposure to claims by customers or employees, but the prevalence of ETS, the relatively low level of exposure and the lack of any scientific evidence linking it to adverse health effects should serve to insulate them. Plaintiffs who successfully overcome the burden of attributing their cancer to passive smoking will face the additional and formidable task of persuading a jury that a single source of exposure is at least the principal cause of their ill health. It is not difficult to conclude from reading EPA's report that exposure to ETS in social and occupational settings is pervasive, but that the only single source which makes a material contribution to the incidence of lung cancer is spousal smoking. Nicotine levels actually measured in public facilities that permit smoking also tend to be low, ranging from two to 20 micrograms per cubic meter. One hundred hours of breathing this atmosphere may yield less exposure to the harmful elements which tobacco smoke contains than actively smoking a single cigarette. The uptake of tobacco smoke products in this scenario is far below the threshold at which active smokers incur increased risk of lung cancer. It is also true that studies link only spousal and parental smoking to adverse health effects, and then exclusively in women and children. Research on occupational exposure to ETS and male subjects has consistently failed to find a statistically significant link to lung cancer or any other pathological condition.



...*Bad News, Good News*

As if their job wasn't tough enough, fire fighters now face a new occupational hazard: professional liability claims. Judges across the country have begun to allow suits charging that fire services failed to follow proper procedures in battling a blaze. Courts use the department's own manuals and the procedures of other fire services to establish the standard of care. While their tactics may provide grounds for a claim, however, courts have rejected every suit challenging fire service strategy: deployment of equipment and assignment of personnel and apparatus to individual fires.

In what has been reported as the first award of damages against a fire department for negligent failure to suppress a fire, the Supreme Judicial Court of Massachusetts affirmed a judgment against the City of Lowell. The jury awarded $850,000 in damages after determining that fire fighters caused the loss of five warehouses by diverting water from the buildings' automatic sprinkler systems to their own hoses, and the court reduced that to the $100,000 cap on municipal liability in Massachusetts. A federal court in New Orleans also found negligence but awarded no damages in a suit charging that fire fighters improperly cut off electricity to a burning building, disabling electrically powered sprinkler pumps.

The news isn't all bad, though. The spectre of professional liability claims should encourage fire services to improve their standard procedures and training, and the true beneficiary in these suits is often the fire insurer subrogated to the insured's right of action. Moreover, it's hard to object to judgments against anyone who turns off automatic sprinklers or diverts their water supply during a fire. *Best's Underwriting Newsletter* has always advocated sprinklers for both property protection and life safety applications, and the events we reported in September, 1992 clearly indicate their ability to work flawlessly, unless some idiot turns them off.

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